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12

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,149	03/24/2004	Ming Gao Yao	12553/109	5283

7590  
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04/24/2007

EXAMINER
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CASTRO, ANGEL A

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

9/

## Office Action Summary

**Application No.**

10/808,149

**Applicant(s)**

YAO ET AL.

**Examiner**

Angel A. Castro

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-7, 12-14 and 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-11 and 15-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08).<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

This Office Action is in response to Amendment filed 2/22/07.

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the controller must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the suspension as described in the specification.

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR

1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-4, 8-11 and 15-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 8 and 15, it is not clear from the claims and drawings how the suspension is positioned with respect to the slider since it is not labeled and it could be that the slider is positioned on the gimbal or load beam.

Regarding claim 15, it is not clear from the claim how “coupling the slider with the slider fixture by applying an adhesive substance to the suspension” can be accomplished without applying an adhesive between the fixture and the slider.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2627

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-4, 8 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamaguchi et al (U.S. Pat. 5,243,482).

Regarding claim 1, as far as it is understood, Yamaguchi et al discloses a suspension assembly (figures 1-25), comprising a suspension 3 to hold a slider 1 above a data storage medium; and a slider fixture formed on the suspension to couple with portions of at least two surfaces of the slider other than a surface facing the data storage medium (see figures 3 and 5) or having a set of connecting pads; and an adhesive substance is applied to the portions between the slider and the slider fixture to couple the slider to the slider fixture (column 7, lines 28-30).

Regarding claim 8, as far as it is understood, Yamauchi et al discloses a magnetic disk drive, comprising a data storage medium 101 to store data; a slider 2 which has a read/write head; a suspension 3 to hold the slider 1 above the data storage medium; a slider fixture formed on suspension to couple with portions of at least two surfaces of the slider other than a surface facing the data storage medium or having a set of connecting pads; an adhesive substance is applied to the portions between the slider and the slider fixture to couple the slider to the slider fixture; and a controller to control movement of the suspension and operation of the read/write head.

Regarding claims 3 and 10, Yamauchi et al discloses that the slider fixture has a first side forming plate 56 (see figure 26) formed to cover a first side surface of the slider and a second side forming plate 56 formed to cover a second side surface of the slider.

Regarding claims 4 and 11, Yamauchi et al shows that the slider fixture has a first side forming plate 56 formed to partially cover a first side surface of the slider and a second side forming plate 56 formed to partially cover a second side surface of the slider (see figure 26).

7. Claims 1-2, 8-9 and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Subrahmanyam et al (U.S. Pat. 7,006,330).

Regarding claim 1, as far as it is understood, Subrahmanyam et al discloses a suspension assembly (figures 1 and 7), comprising a suspension 62, 40 to hold a slider 44 above a data storage medium 16; and a slider fixture 64 formed on the suspension to couple with portions of at least two surfaces of the slider other than a surface facing the data storage medium (see figure 7) or having a set of connecting pads 76, 98; and an adhesive substance is applied to the portions between the slider and the slider fixture to couple the slider to the slider fixture.

Regarding claim 8, as far as it is understood, Subrahmanyam et al discloses a magnetic disk drive, comprising a data storage medium 16 to store data; a slider 44 which has a read/write head; a suspension 62, 40 to hold the slider above the data storage medium; a slider fixture 64 formed on the suspension to couple with portions of at least two surfaces of the slider other than a surface facing the data storage medium or having a set of connecting pads; an adhesive substance is applied to the portions between the slider and the slider fixture to couple the slider to the slider fixture; and a controller to control movement of the suspension and operation of the read/write head.

Regarding claim 15, as far as it is understood, Subrahmanyam et al discloses a method, comprising forming a slider 44 which has a read/write head; forming a suspension 62, 40 to

Art Unit: 2627

hold the slider; forming a circuit on the suspension to connect electrically with the slider (see figure 6); forming a slider fixture 64 on the suspension to couple with portions of at least two surfaces of the slider other than a surface facing the data storage medium or having a set of connecting pads; coupling the slider with the slider fixture by applying an adhesive substance to the slider or the suspension; and electrically connecting the circuit with the slider (see figure 7).

Regarding claims 2, 9 and 16, Subrahmanyam et al discloses that the adhesive substance is applied as a partial dot on the portion between the slider and the slider fixture (see element 104 in figure 7).

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al.

Regarding claims 15 and 17, Yamaguchi et al discloses the method described above. Yamaguchi et al does not specifically disclose forming a circuit on the suspension to connect electrically with the slider. It would have been obvious to one of ordinary skill in the art at the

Art Unit: 2627

time the invention was made to form a circuit on the suspension to connect electrically with the slider as it well known in the art.

The rationale is as follows: one of ordinary skill in the art would have been motivated to form a circuit on the suspension to connect electrically with the slider as it well known in the art in order to properly secure the circuit to the suspension.

### ***Response to Arguments***

10. Applicant's arguments filed 2/22/07 have been fully considered but they are not persuasive.

Applicant asserts in page 8, fourth paragraph:

“Figure 5 describes another view of a slider embodiment wherein the finger portion 52 is connected to step member 55 and coupling member 56. None of these elements constitute a *slider fixture formed on a suspension* at all. Applicant submit the Yamaguchi reference, including cited Figures 3 and 5, fails to describe at least these relevant limitations.”

The Examiner respectfully points out that it is not clear how the slider fixture is formed on a suspension that is not indicated in the figures of the present Application. It appears from the figures that the slider fixture is formed on a gimbal and not on the suspension.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel A. Castro whose telephone number is 571-272-7584. The examiner can normally be reached on Monday through Thursday, 8 AM to 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Angel Castro, Ph.D.